2: Karsten E-5 (1911-1913)1932 S17 Mataco S17

the annual rainfall is more abundant and the temperature more equable, we meet with a luxuriant vegetation and almost impenetrable virgin forests. When we pass eastwards this picture gradually changes. Open grass-covered plains dotted with fan palms (*Copernicia cerifera*), which in some places form real palm-groves, are varied by patches of arid deserts with lonely cactuses or with patches of forest, mostly composed of small and scrubby trees which sometimes seem almost impassable by man or beast. Occasionally, however, large forest trees are found. Among these the *Guayacan* (*Caesalpina melanocarpa*), the *Quebracho* (*Quebrachia Lorentzii*), and the *Palo santo* or holywood are well known as fine timber trees. Their iron-hard wood to a certain extent compensates the Chaco Indians for the complete lack of stone in their country, their most important weapons and implements being made of these kinds of wood. It is a remarkable fact that in the pampas regions of the Chaco not the smallest stone can be found within an area of hundreds of square miles; the soil is entirely composed of fine-grained silt, with occasional layers of sand.

From an alimental point of view the most common and at the same time most valuable tree is the *algaroba* (*Prosopis alba or juliflora*), which forms real forests. Its pod-like fruit, which is extremely rich in sugar, is very nourishing and in fact feeds thousands of Indians for two or three months of the year. Of this fruit moreover the natives brew their favourite national drink, the algaroba beer, which plays an important part in their social and religious life. Other wild trees of great nutritive value are the *tusca* (*Acacia aroma*), the *chañar* (*Gourliea decortitans*), and the *mistol* (*Sisyphus mistol*), from which also intoxicating fermented drinks are prepared.

A plant which is quite common in the thickets of the Chaco and which is very useful, although extremely troublesome to the traveller because of its long thorns, is the *caraguatá* plant (*Bromelia serra*). It is from the fibres of this plant that the Indians twine the thread of which they make their shirts, bags, nets, etc. Its edible root-stocks are also useful.

It is the scarcity of rain that stamps the vegetation in the interior of the Chaco, just as it exerts its influence upon the culture of the natives. Thus agriculture can be practised only in a very limited degree. A real rainy season scarcely exists, but the period when rainfalls are more common than at other times of the year — from October to March — is called »summer» in the Chaco. Owing to prolonged rains in the moun-